

## **REMARKS**

By this amendment, claim 37 has been canceled. Claims 1, 8, 11, 13, 15, 21, 22, 27, 29, 31, 34 and 35 have been amended. Claims 1-36 remain in the application. Support for the amendments can be found the specification and drawings. No new matter has been added. This application has been carefully considered in connection with the Examiner's Action. Reconsideration, and allowance of the application, as amended, is requested.

### **Rejection under 35 U.S.C. §101**

Claim 37 stands rejected under 35 U.S.C. §101 because the claimed invention is directed to non-statutory subject matter. By this amendment, claim 37 has been canceled, thus rendering the rejection thereof now moot.

Claim 1-24 and 27-30 stand rejected under 35 U.S.C. §101 as not falling within one of the four statutory categories of invention. Applicant respectfully traverses this rejection for at least the following reasons. By this amendment, claims 1, 11, and 22 have been amended in a manner such that they now are now more clearly directed to subject matter that falls within one of the four statutory categories of invention. In particular, claim 1, as now presented, is directed to a method for providing content identification within a media data stream for distribution from a media content data source device. Claims 2-10 depend from claim 1. Claim 11, as now presented, is directed to a method of transcoding a media data stream for distribution from a transcoder device. Claims 12-21 depend from claim 11. Claim 22, as now presented, is directed to a method of verifying the integrity of secured content identification data embedded in a media data stream with a receiver device. Claims 23, 24, and 27-30 depend from claim 22. Withdrawal of the rejection is respectfully requested.

**Rejection under 35 U.S.C. §102**

Claim 22 recites a method of verifying the integrity of secured content identification data embedded in a media data stream with a receiver device, comprising:

receiving a data stream of media content by the receiver device, the data stream of media content including embedded, secured content identification data in frames of the media data stream at regular intervals within the media data stream, in which the secured content identification data incorporates data relating to a predetermined property of the media data stream and that corresponds to a tamper resistant identifier that is based upon a rapidly changing property of the media data stream, wherein the rapidly changing property of the media data stream includes a property which changes with each frame of the media data stream, the content identification data further including a continuity count within the identifier, wherein the continuity count comprises a data field that increments in a predictable manner each time the identifier is inserted into the media data stream to enable a detection of unauthorized editing by detecting any discontinuity in an embedded continuity count;

extracting first data relating to a predetermined property of the media data stream;

extracting content identification data from the secured content identification data;

extracting second data relating to the predetermined property from the secured content identification data; and

comparing the first data and the second data to verify the authenticity of the extracted content identification data.

Support for the amendments to claim 22 (as well as for claim 35) can be found in the specification at least on page 6, lines 25-26; page 7, lines 14-16 and 26-27; and page 10, lines 4-15.

Claims 22, 27-30 and 35 were rejected under 35 U.S.C. §102(b) as being anticipated by **Deguillaume** et al., (US Pub No 2003/0070075, hereinafter referred to as "**Deguillaume**"). Applicant respectfully traverses this rejection for at least the following reasons.

The PTO provides in MPEP § 2131 that  
*"[t]o anticipate a claim, the reference must teach every element of the claim...."*

Therefore, with respect to claim 22, as now presented, to sustain this rejection the **Deguillaume** reference must contain all of the claimed elements of the claim. However, contrary to the examiner's position that all elements are disclosed in the **Deguillaume** reference, the latter reference does not disclose receiving a data stream of media content having "embedded, secured content identification data *in frames ... at regular intervals* within the media data stream [*that*] ... incorporates data relating to a predetermined property of the media data stream and that corresponds to a *tamper resistant identifier ... based upon a rapidly changing property* of the media data stream, wherein the *rapidly changing property ... includes a property which changes with each frame ... the content identification data further including a continuity count within the identifier [that] ... comprises a data field that increments ... each time the identifier is inserted into the media data stream to enable a detection of unauthorized editing by detecting any discontinuity in an embedded continuity count ...*" [*emphasis added*] as is claimed in claim 22. Therefore, the rejection is not supported by the **Deguillaume** reference and should be withdrawn.

In contrast, **Deguillaume** discloses a hybrid watermarking method for a multimedia document image, including robust and fragile watermarks, in which the method includes dividing the image into small blocks, hashing of a current block and neighboring blocks together in a first step to introduce local contextual dependencies, and could be called hash-code block chaining (HBC). (See Deguillaume, paragraphs

[0013], [0016], and [0040]) However, **Deguillaume** does not disclose receiving a data stream of media content having “embedded, secured content identification data *in frames ... at regular intervals* within the media data stream [*that*] ... incorporates data relating to a predetermined property of the media data stream and that corresponds to a *tamper resistant identifier ... based upon a rapidly changing property* of the media data stream, wherein the *rapidly changing property ... includes a property which changes with each frame ... the content identification data further including a continuity count within the identifier [that] ... comprises a data field that increments ... each time the identifier is inserted into the media data stream to enable a detection of unauthorized editing by detecting any discontinuity in an embedded continuity count ...*” [*emphasis added*] as is claimed in claim 22.

Accordingly, claim 22 is allowable and an early formal notice thereof is requested. Claims 27-30 depend from and further limit independent claim 22 and therefore are allowable as well. The 35 U.S.C. § 102(b) rejection thereof has now been overcome. Withdrawal of the rejection is respectfully requested.

Claim 35 has been amended in a manner similar to the amendments to claim 22. Accordingly, for similar reasons as stated with respect to overcoming the rejection of claim 22, claim 35 is believed allowable and an early formal notice thereof is requested. The 35 U.S.C. § 102(b) rejection thereof has now been overcome. Withdrawal of the rejection is respectfully requested.

**Rejection under 35 U.S.C. §103**

Claim 1 recites method for providing content identification within a media data stream for distribution from a media content data source device comprising:

receiving the data stream of media content at the media content data source device; and

inserting content identification data into frames of the media data stream at regular intervals within the media data stream to be distributed, wherein the content identification data includes a tamper resistant identifier that is based upon a rapidly changing property of the media data stream, further wherein the rapidly changing property of the media data stream includes a property which changes with each frame of the media data stream, the content identification data further comprising a continuity count within the identifier, wherein the continuity count comprises a data field that increments in a predictable manner each time the identifier is inserted into the media data stream to enable a detection of unauthorized editing by detecting any discontinuity in an embedded continuity count.

Support for the amendments to claim 1 (as well as for claim 31) can be found in the specification at least on page 6, lines 25-26; page 7, lines 14-16 and 26-27; and page 10, lines 4-15.

Claims 1-2, 6, 31 and 36-37 were rejected under 35 U.S.C. §103(a) as being unpatentable over **Papagan** et al. (US Pub No 2002/0059604, hereinafter referred to as "**Papagan**") in view of **Penk** et al. (US Pub No 2003/0074670, hereinafter referred to as "**Penk**"). With respect to claim 37, the same has been canceled, thus rendering the rejection thereof now moot.

With respect to claim 1, as amended herein, Applicant respectfully traverses this rejection on the grounds that these references are defective in establishing a prima

facie case of obviousness.

As the PTO recognizes in MPEP § 2142:

*... The examiner bears the initial burden of factually supporting any prima facie conclusion of obviousness. If the examiner does not produce a prima facie case, the applicant is under no obligation to submit evidence of nonobviousness...*

It is submitted that, in the present case, the examiner has not factually supported a prima facie case of obviousness for the following reasons.

**1. Even When Combined, the References Do Not Teach the Claimed Subject Matter**

The **Papagan** and **Penk** references cannot be applied to reject claim 1 under 35 U.S.C. § 103 which provides that:

*A patent may not be obtained ... if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which the subject matter pertains ... (Emphasis added)*

Thus, when evaluating a claim for determining obviousness, all limitations of the claim must be evaluated. However, since neither **Papagan** nor **Penk** teaches receiving a data stream of media content having “embedded, secured content identification data *in frames ... at regular intervals* within the media data stream [*that*] ... incorporates data relating to a predetermined property of the media data stream and that corresponds to a *tamper resistant identifier ... based upon a rapidly changing property* of the media data stream, wherein the *rapidly changing property ... includes a property which changes with each frame ... the content identification data further including a continuity count within the identifier [that] ... comprises a data field that increments ... each time the identifier is inserted into the media data stream to enable a detection of unauthorized editing by detecting any discontinuity in an embedded continuity count ...*” [emphasis added] as is now claimed in claim 1, it is impossible to render the subject matter of claim 1 as a whole obvious, and the explicit terms of the statute cannot be met.

In contrast, while **Papagan** teaches “a method for providing *linked* media content for *interactive* broadcast over a network” with the use of *metadata* [emphasis added] for searching stored media content for later multimedia presentations (See Papagan Abstract, and paragraphs [0027] and [0028]), **Papagan** does not teach or suggest receiving a data stream of media content having “embedded, secured content identification data *in frames ... at regular intervals* within the media data stream [*that*] ... incorporates data relating to a predetermined property of the media data stream and that corresponds to a *tamper resistant identifier ... based upon a rapidly changing property* of the media data stream, wherein the *rapidly changing property ...* includes a property which *changes with each frame ...* the content identification data further including a *continuity count* within the *identifier* [*that*] ... comprises a data field that increments ... *each time* the identifier is *inserted into* the media data stream to enable a *detection* of unauthorized editing by detecting any *discontinuity* in an *embedded continuity count ...*” as is specifically recited in claim 1 of the present application.

In further contrast, while **Penk** teaches “providing *dynamic* network information to *devices* in a *network*” and a device that “uses the received network information to *monitor* the *network* and to *determine network conditions*” and wherein “content received from the content providers is in the form of a *transport* stream” [emphasis added] (see Penk Abstract, and at paragraph [0041]), **Penk** does not teach or suggest receiving a data stream of media content having “embedded, secured content identification data *in frames ... at regular intervals* within the media data stream [*that*] ... incorporates data relating to a predetermined property of the media data stream and that corresponds to a *tamper resistant identifier ... based upon a rapidly changing property* of the media data stream, wherein the *rapidly changing property ...* includes a property which *changes with each frame ...* the content identification data further including a *continuity count* within the *identifier* [*that*] ... comprises a data field that increments ... *each time* the identifier is *inserted into* the media data stream to enable a *detection* of unauthorized editing by detecting any *discontinuity* in an *embedded*

*continuity count ...*” as is specifically recited in claim 1 of the present application.

Thus, for this reason, the examiner's burden of factually supporting a *prima facie* case of obviousness has clearly not been met, and the rejection under 35 U.S.C. §103 should be withdrawn.

## 2. The Combination of References is Improper

Assuming, arguendo, that the above argument for non-obviousness does not apply (which is clearly not the case based on the above), there is still another compelling reason why the **Papagan** and **Penk** references cannot be applied to reject claim 1 under 35 U.S.C. § 103.

§ 2142 of the MPEP also provides:

*...the examiner must step backward in time and into the shoes worn by the hypothetical 'person of ordinary skill in the art' when the invention was unknown and just before it was made.....The examiner must put aside knowledge of the applicant's disclosure, refrain from using hindsight, and consider the subject matter claimed 'as a whole'.*

Here, neither **Papagan** nor **Penk** teaches, or even suggests, the desirability of the combination since neither teaches the specific data stream of media content having “embedded, secured content identification data *in frames ... at regular intervals* within the media data stream [*that*] ... incorporates data relating to a predetermined property of the media data stream and that corresponds to a *tamper resistant identifier ... based upon a rapidly changing property* of the media data stream, wherein the *rapidly changing property ... includes a property which changes with each frame ... the content identification data further including a continuity count within the identifier [that] ... comprises a data field that increments ... each time the identifier is inserted into the media data stream to enable a detection of unauthorized editing by detecting any discontinuity in an embedded continuity count ...*” as specified above and as claimed in claim 1.



Thus, it is clear that neither reference provides any incentive or motivation supporting the desirability of the combination. Therefore, there is simply no basis in the art for combining the references to support a 35 U.S.C. § 103 rejection.

In this context, the MPEP further provides at § 2143.01:

*The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination.*

In the above context, the courts have repeatedly held that obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching, suggestion or incentive supporting the combination. In the present case it is clear that the combination as suggested by the office action arises solely from hindsight based on the invention without any showing, suggestion, incentive or motivation in either reference for the combination as applied to claim 1. Therefore, for this reason, the examiner's burden of factually supporting a *prima facie* case of obviousness has clearly not been met, and the rejection under 35 U.S.C. §103 should be withdrawn.

Accordingly, claim 1 is allowable and an early formal notice thereof is requested. Claims 2, 6 and 36 depend from and further limit independent claim 1 and therefore are allowable as well. The 35 U.S.C. §103(a) rejection thereof has now been overcome. Withdrawal of the rejection is requested.

Claim 31 has been amended in a manner similar to the amendments to claim 1. Accordingly, for similar reasons as stated with respect to overcoming the rejection of claim 1, claim 31 is believed allowable and an early formal notice thereof is requested. The 35 U.S.C. §103(a) rejection thereof has now been overcome. Withdrawal of the rejection is respectfully requested.

Claims 3 and 7-9 were rejected under 35 U.S.C. §103(a) as being unpatentable over **Papagan** and **Penk** as applied to claim 1, and further in view of **Deguillaume**. Applicant respectfully traverses this rejection for at least the following reasons. Claims 3 and 7-9 depend from and further limit allowable independent claim 1 and therefore are allowable as well. Withdrawal of the rejection is requested.

Claims 4-5 and 32-33 were rejected under 35 U.S.C. §103(a) as being unpatentable over **Papagan**, **Penk** and **Deguillaume** as applied to claims 1 and 31, and further in view of **Miettinen** et al. (US Pub No 2002/0138729, hereafter referred to as "**Miettinen**"). Applicant respectfully traverses this rejection for at least the following reasons. Claims 4-5 and 32-33 depend from and further limit allowable independent claims 1 and 31, respectively, and therefore are allowable as well. Withdrawal of the rejection is requested.

Claim 10 was rejected under 35 U.S.C. §103(a) as being unpatentable over **Papagan**, **Penk**, **Deguillaume** and **Miettinen** as applied to claim 1, and further in view of **Everett** (US Patent No 6,328,217, hereafter referred to as "**Everett**"). Applicant respectfully traverses this rejection for at least the following reasons. Claim 10 depends from and further limits allowable independent claim 1 and therefore is allowable as well. Withdrawal of the rejection is requested.

Claims 11-16 and 34 were rejected under 35 U.S.C. §103(a) as being unpatentable over **Chang** et al. (US Patent No 6,963,972, hereinafter "**Chang**") in view of **Deguillaume** and further in view of **Miettinen**. With respect to claims 11 and 34, applicant respectfully traverses this rejection. Claims 11 and 34 have been amended herein to be more clearly distinguished over the cited art. Support for the amendments to claim 11, as well as for claim 34, can be found in the specification at least on page 6, lines 25-26; page 7, lines 14-16 and 26-27; and page 10, lines 4-15.

With respect to claim 11, as amended herein, Applicant respectfully traverses this rejection on the grounds that these references are defective in establishing a prima facie case of obviousness.

As the PTO recognizes in MPEP § 2142:

*... The examiner bears the initial burden of factually supporting any prima facie conclusion of obviousness. If the examiner does not produce a prima facie case, the applicant is under no obligation to submit evidence of nonobviousness...*

It is submitted that, in the present case, the examiner has not factually supported a prima facie case of obviousness for the following reasons.

### **3. Even When Combined, the References Do Not Teach the Claimed Subject Matter**

The **Chang**, **Deguillaume**, and **Miettinen** references cannot be applied to reject claim 11 under 35 U.S.C. § 103 which provides that:

*A patent may not be obtained ... if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which the subject matter pertains ... (Emphasis added)*

Thus, when evaluating a claim for determining obviousness, all limitations of the claim must be evaluated. However, since neither **Chang**, **Deguillaume**, nor **Miettinen** teaches receiving a data stream of media content having “embedded, secured content identification data *in frames ... at regular intervals* within the media data stream [*that*] ... incorporates data relating to a predetermined property of the media data stream and that corresponds to a *tamper resistant identifier ... based upon a rapidly changing property* of the media data stream, wherein the *rapidly changing property ...* includes a property which *changes with each frame ...* the content identification data further including a *continuity count* within the *identifier* [*that*] ... comprises a data field that increments ... *each time* the identifier is *inserted into* the media data stream to enable a

*detection* of unauthorized editing by detecting any *discontinuity* in an *embedded continuity count ...*” [emphasis added] as is now claimed in claim 11, it is impossible to render the subject matter of claim 1 as a whole obvious, and the explicit terms of the statute cannot be met.

Thus, for this reason, the examiner’s burden of factually supporting a *prima facie* case of obviousness has clearly not been met, and the rejection under 35 U.S.C. §103 should be withdrawn.

#### **4. The Combination of References is Improper**

Assuming, arguendo, that the above argument for non-obviousness does not apply (which is clearly not the case based on the above), there is still another compelling reason why the **Chang**, **Deguillaume**, and **Miettinen** references cannot be applied to reject claim 1 under 35 U.S.C. §103.

§ 2142 of the MPEP also provides:

*...the examiner must step backward in time and into the shoes worn by the hypothetical ‘person of ordinary skill in the art’ when the invention was unknown and just before it was made.....The examiner must put aside knowledge of the applicant’s disclosure, refrain from using hindsight, and consider the subject matter claimed ‘as a whole’.*

Here, neither **Chang**, **Deguillaume**, nor **Miettinen** teaches, or even suggests, the desirability of the combination since none teaches the specific data stream of media content having “embedded, secured content identification data *in frames ... at regular intervals* within the media data stream [*that*] ... incorporates data relating to a predetermined property of the media data stream and that corresponds to a *tamper resistant identifier ... based upon a rapidly changing property* of the media data stream, wherein the *rapidly changing property ... includes a property which changes with each frame ... the content identification data further including a continuity count within the identifier [that] ... comprises a data field that increments ... each time the identifier is inserted into the media data stream to enable a detection* of unauthorized editing by

detecting any *discontinuity* in an *embedded continuity count ...*” as specified above and as claimed in claim 11.

Thus, it is clear that neither reference provides any incentive or motivation supporting the desirability of the combination. Therefore, there is simply no basis in the art for combining the references to support a 35 U.S.C. §103 rejection.

In this context, the MPEP further provides at § 2143.01:

*The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination.*

In the above context, the courts have repeatedly held that obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching, suggestion or incentive supporting the combination.

In the present case it is clear that the combination as suggested by the office action arises solely from hindsight based on the invention without any showing, suggestion, incentive or motivation in either reference for the combination as applied to claim 11. Therefore, for this reason, the examiner’s burden of factually supporting a *prima facie* case of obviousness has clearly not been met, and the rejection under 35 U.S.C. §103 should be withdrawn.

Accordingly, claim 11 is allowable and an early formal notice thereof is requested. Claims 12-16 depend from and further limit allowable independent claim 11 and therefore are allowable as well. Withdrawal of the rejection is requested.

Claim 34 has been amended in a manner similar to the amendments to claim 11. Accordingly, for similar reasons as stated with respect to overcoming the rejection of claim 11, claim 34 is believed allowable and an early formal notice thereof is requested. The 35 U.S.C. § 103(a) rejection thereof has now been overcome. Withdrawal of the rejection is respectfully requested.

Claims 17-18 were rejected under 35 U.S.C. §103(a) as being unpatentable over **Chang** et al. in view of **Deguillaume**, in view of **Miettinen**, and further in view of **Reeds**

et al. (US Patent No 5,153,919, hereinafter "**Reeds**"). Applicant traverses this rejection for at least the following reason. Claims 17-18 depend from and further limit allowable independent claim 11 and therefore are allowable as well. Withdrawal of the rejection is requested.

Claims 19-21 were rejected under 35 U.S.C. §103(a) as being unpatentable over **Chang** et al. in view of **Deguillaume**, in view of **Miettinen**, and further in view of **McCormack** et al. (US Pub No 2004/0143836, hereinafter "**McCormack**"). Applicant traverses this rejection for at least the following reason. Claims 19-21 depend from and further limit allowable independent claim 11 and therefore are allowable as well. Withdrawal of the rejection is requested.

Claim 23 was rejected under 35 U.S.C. §103(a) as being unpatentable over **Deguillaume** in view of **Miettinen**. Applicant respectfully traverses this rejection for at least the following reasons. Claim 23 depends from and further limits allowable independent claim 22 and therefore is allowable as well. Withdrawal of the rejection is requested.

Claim 24 was rejected under 35 U.S.C. §103(a) as being unpatentable over **Deguillaume** in view of **Miettinen** and in further view of **Everett**. Applicant respectfully traverses this rejection for at least the following reasons. Claim 24 depends from and further limits allowable claim 23 and therefore is allowable as well. Withdrawal of the rejection is requested.

Claim 25 was rejected under 35 U.S.C. §103(a) as being unpatentable over **Deguillaume** in view of **Chang** and further in view of **Reeds**. Applicant respectfully traverses this rejection for at least the following reasons. Claim 25 depends from and further limits allowable independent claim 22 and therefore is allowable as well. Withdrawal of the rejection is requested.

Claim 26 was rejected under 35 U.S.C. §103(a) as being unpatentable over **Deguillaume** in view of **Reeds** in view of **Chang** and further in view of **Miettinen**. Applicant respectfully traverses this rejection for at least the following reasons. Claim 26

depends from and further limits allowable claim 25 and therefore is allowable as well.  
Withdrawal of the rejection is requested.

### **Conclusion**

Except as indicated herein, the claims were not amended in order to address issues of patentability and Applicants respectfully reserve all rights they may have under the Doctrine of Equivalents. Applicants furthermore reserve their right to reintroduce subject matter deleted herein at a later time during the prosecution of this application or a continuation application.

It is clear from all of the foregoing that independent claims 1, 11, 22, 31, 34 and 35 are in condition for allowance. Claims 2-6 and 36 depend from and further limit independent claim 1 and therefore are allowable as well. Claims 12-21 depend from and further limit independent claim 11 and therefore are allowable as well. Claims 23-30 depend from and further limit independent claim 22 and therefore are allowable as well. Claims 32-33 depend from and further limit independent claim 31 and therefore are allowable as well.

The amendments herein are fully supported by the original specification and drawings; therefore, no new matter is introduced. An early formal notice of allowance of claims 1-36 is requested.

Respectfully submitted,

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